Hyun K. Kim et al.

Application No.: 09/526,855

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## **APPENDIX A: PENDING CLAIMS**

1. (Twice Amended) A compound having the general formula:

I

$$\mathbb{R}^1$$
 $\mathbb{R}^4$ 
 $\mathbb{R}^3$ 

3 wherein:

4 R<sup>1</sup> is a member selected from the group consisting of -OCH<sub>3</sub>, -SCH<sub>3</sub>, -N(CH<sub>3</sub>)<sub>2</sub>,

5 -NHCH<sub>3</sub>, -NC<sub>4</sub>H<sub>8</sub>, -NC<sub>5</sub>H<sub>10</sub>, -NC<sub>4</sub>H<sub>8</sub>O, -CHO, -CH(OH)CH<sub>3</sub>, -C(O)CH<sub>3</sub>, -O(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>,

6  $-O(CH_2)_2NC_4H_8$ , and  $-O(CH_2)_2NC_5H_{10}$ ;

R<sup>2</sup> is a member selected from the group consisting of hydrogen, halogen, alkyl,

8 acyl, hydroxy, alkoxy, acyloxy, alkylcarbonate, cypionyloxy, S-alkyl, -SCN, S-acyl, and

9 -OC(O)R<sup>6</sup>, wherein R<sup>6</sup> is a member selected from the group consisting of alkyl, alkoxy ester and

10 alkoxy;

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R<sup>3</sup> is a member selected from the group consisting of alkyl-alkoxy, alkoxy and

12 acyloxy;

R<sup>4</sup> is a member selected from the group consisting of hydrogen and alkyl;

14 X is a member selected from the group consisting of =O and =N-OR<sup>5</sup>, wherein R<sup>5</sup>

is a member selected from the group consisting of hydrogen and alkyl; and

16 wherein:

if R<sup>1</sup> is -N(CH<sub>3</sub>)<sub>2</sub> or -NHCH<sub>3</sub>, R<sup>2</sup> is hydrogen, R<sup>3</sup> is acetyloxy and R<sup>4</sup> is methyl,

18 then X is other than =0; and

19	if $R^1$ is $-N(CH_3)_2$ , $R^2$ is hydroxy, $R^4$ is alkyl and X is $=0$ , then $R^3$ is other than
20	hydroxy.
1	2. The compound in accordance with claim 1, wherein $R^1$ is a member
2	selected from the group consisting of -N(CH <sub>3</sub> ) <sub>2</sub> , -NC <sub>4</sub> H <sub>8</sub> , -NC <sub>5</sub> H <sub>10</sub> , -NC <sub>4</sub> H <sub>8</sub> O, -C(O)CH <sub>3</sub> ,
3	$-O(CH_2)_2N(CH_3)_2$ , $-O(CH_2)_2NC_4H_8$ , and $-O(CH_2)_2NC_5H_{10}$ .
1	3. (Amended) The compound in accordance with claim 1, wherein R <sup>2</sup> is a
2	member selected from the group consisting of hydrogen, acyloxy, alkoxy, -SAc, -SCN,
3	-OC(O)CH <sub>2</sub> N(CH <sub>3</sub> ) <sub>2</sub> , and -OC(O)R <sup>6</sup> , wherein R <sup>6</sup> is a member selected from the group consisting
4	of alky, alkoxy ester and alkoxy.
1	4. The compound in accordance with claim 3, wherein $R^2$ is $-OC(O)R^6$ and
2	R <sup>6</sup> is a member selected from the group consisting of -CH <sub>2</sub> CH <sub>3</sub> , -CH <sub>2</sub> OCH <sub>3</sub> and -OCH <sub>3</sub> .
1	5. The compound in accordance with claim 1, wherein $R^2$ is an alkoxy
2	selected from the group consisting of methoxy, ethoxy, vinyloxy, ethynyloxy and
3	cyclopropyloxy
1 .	6. (Twice Amended) The compound in accordance with claim 1, wherein R <sup>3</sup>
2	is a member selected from the group consisting of alkoxy and acyloxy.
1	7. The compound in accordance with claim 1, wherein R <sup>4</sup> is alkyl.
1	8. The compound in accordance with claim 1, wherein X is =0.
1	9. The compound in accordance with claim 1, wherein $X$ is $=N-OR^5$ .
1	10. The compound in accordance with claim 1, wherein:
2	$R^{1}$ is $-N(CH_{3})_{2}$ ;
3	R <sup>2</sup> is hydrogen;

4		R <sup>3</sup> is acyloxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	11.	The compound in accordance with claim 10, wherein R <sup>3</sup> is acyloxy
2	selected from the g	roup consisting of -OC(O)H, -OC(O)CH <sub>2</sub> CH <sub>3</sub> and -OC(O)C <sub>6</sub> H <sub>13</sub> .
1	12.	The compound in accordance with claim 1, wherein:
2		$R^{1}$ is $-N(CH_{3})_{2}$ ;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is methoxymethyl;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	13.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-NC_4H_8$ ;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	. 14.	The compound in accordance with claim 1, wherein:
2		$R^{1}$ is -NC <sub>5</sub> H <sub>10</sub> ;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	15.	The compound in accordance with claim 1, wherein:

2		$R^1$ is -NC <sub>4</sub> H <sub>8</sub> O;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	16.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-C(O)CH_3$ ;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	17.	The compound in accordance with claim 1, wherein:
2		R <sup>1</sup> is -SCH <sub>3</sub> ;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	18.	(Amended) The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	19.	The compound in accordance with claim 1, wherein:
2		$R^1$ is -NC <sub>5</sub> H <sub>10</sub> ;

3		R <sup>2</sup> is hydrogen;
4		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	20.	The compound in accordance with claim 1, wherein:
2	•	$R^{1}$ is -NC <sub>5</sub> H <sub>10</sub> ;
3		R <sup>2</sup> is acetoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6	•	X  is  = 0.
1	21.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-C(O)CH_3$ ;
3		R <sup>2</sup> is acetoxy;
4 .		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	22.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-C(O)CH_3$ ;
3		R <sup>2</sup> is -SAc;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	23.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-C(O)CH_3$ ;
3		R <sup>2</sup> is methoxy;

4		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	24.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	25.	The compound in accordance with claim 1, wherein:
2		$R^{1}$ is $-N(CH_{3})_{2}$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is ethoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = O.
1	26.	The compound in accordance with claim 1, wherein:
2		$R^1$ is -NC <sub>4</sub> H <sub>8</sub> ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = O.
1	27.	The compound in accordance with claim 1, wherein:
2		$R^1$ is -NC <sub>5</sub> H <sub>10</sub> ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is methoxy;

5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	28.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-NC_5H_{10}$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	29.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-C(O)CH_3$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	30.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-O(CH_2)_2N(CH_3)_2$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	31.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-O(CH_2)_2NC_4H_8$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and

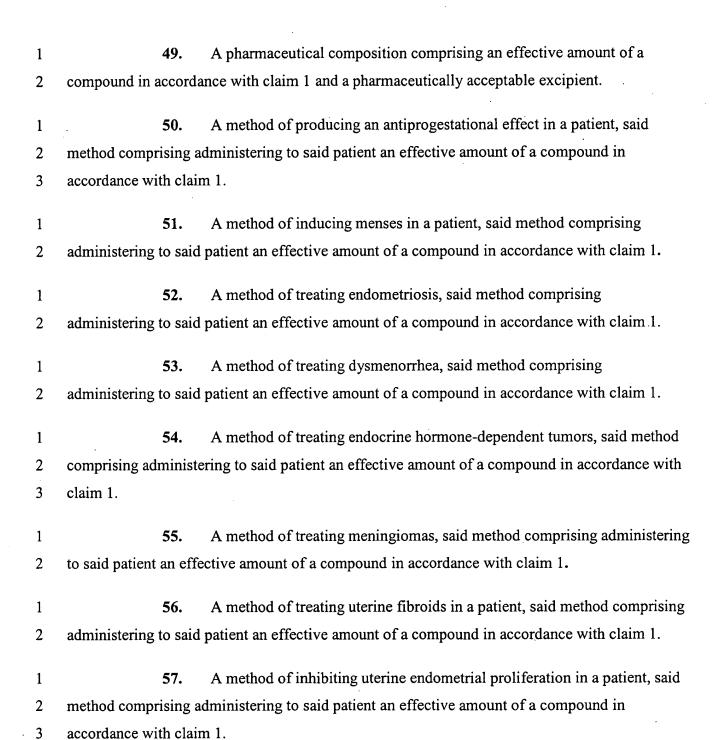
6		X  is  = 0.
1	32.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-O(CH_2)_2NC_5H_{10}$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
.1	33.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		$R^2$ is $-OC(O)CH_2CH_3$ ;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	34.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		$R^2$ is $-OC(O)CH_2OCH_3$ ;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is = 0.
1	35.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		$R^2$ is $-OC(O)OCH_3$ ;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.

1	36.	The compound in accordance with claim 1, wherein:
2		$R^{1}$ is $-N(CH_{3})_{2}$ ;
3		$R^2$ is -OCH=CH <sub>2</sub> ;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	37.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		$R^2$ is -OCH=CH <sub>2</sub> ;
4		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	38.	The compound in accordance with claim 1, wherein:
2	38.	The compound in accordance with claim 1, wherein: $R^1$ is $-N(CH_3)_2$ ;
	38.	•
2	38.	$R^{1}$ is $-N(CH_{3})_{2}$ ;
2 3	38.	$R^1$ is $-N(CH_3)_2$ ; $R^2$ is $-OCH=CH_2$ ;
2 3 4	38.	R <sup>1</sup> is -N(CH <sub>3</sub> ) <sub>2</sub> ; R <sup>2</sup> is -OCH=CH <sub>2</sub> ; R <sup>3</sup> is ethoxy;
2 3 4 5	38.	R <sup>1</sup> is -N(CH <sub>3</sub> ) <sub>2</sub> ; R <sup>2</sup> is -OCH=CH <sub>2</sub> ; R <sup>3</sup> is ethoxy; R <sup>4</sup> is methyl; and
2 3 4 5 6		$R^{1}$ is $-N(CH_{3})_{2}$ ; $R^{2}$ is $-OCH=CH_{2}$ ; $R^{3}$ is ethoxy; $R^{4}$ is methyl; and X is $=O$ .
2 3 4 5 6		$R^1$ is $-N(CH_3)_2$ ; $R^2$ is $-OCH=CH_2$ ; $R^3$ is ethoxy; $R^4$ is methyl; and X is $=O$ . The compound in accordance with claim 1, wherein:
2 3 4 5 6 1 2		$R^1$ is -N(CH <sub>3</sub> ) <sub>2</sub> ; $R^2$ is -OCH=CH <sub>2</sub> ; $R^3$ is ethoxy; $R^4$ is methyl; and X is =O. The compound in accordance with claim 1, wherein: $R^1$ is -N(CH <sub>3</sub> ) <sub>2</sub> ;
2 3 4 5 6 1 2 3		R <sup>1</sup> is -N(CH <sub>3</sub> ) <sub>2</sub> ;  R <sup>2</sup> is -OCH=CH <sub>2</sub> ;  R <sup>3</sup> is ethoxy;  R <sup>4</sup> is methyl; and  X is =O.  The compound in accordance with claim 1, wherein:  R <sup>1</sup> is -N(CH <sub>3</sub> ) <sub>2</sub> ;  R <sup>2</sup> is -SCN;

1	40.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		$R^2$ is -OC(O)H;
4		$R^3$ is -OC(O)H;
5		R <sup>4</sup> is methyl; and
6		X  is = O.
1	42.	The compound in accordance with claim 1, wherein:
2		$R^1$ is $-N(CH_3)_2$ ;
3		$R^2$ is $-OC(O)CH_2N(CH_3)_2$ ;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	43.	The compound in accordance with claim 1, wherein:
1 2	43.	The compound in accordance with claim 1, wherein: $R^1$ is $-NC_5H_{10}$ ;
	43.	
2	43.	$R^1$ is $-NC_5H_{10}$ ;
2 3	43.	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ; R <sup>2</sup> is hydrogen;
2 3 4	43.	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ; R <sup>2</sup> is hydrogen; R <sup>3</sup> is acetoxy;
2 3 4 5	44.	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ;  R <sup>2</sup> is hydrogen;  R <sup>3</sup> is acetoxy;  R <sup>4</sup> is methyl; and
2 3 4 5 6		R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ;  R <sup>2</sup> is hydrogen;  R <sup>3</sup> is acetoxy;  R <sup>4</sup> is methyl; and  X is =N-OR <sup>5</sup> , wherein R <sup>5</sup> is hydrogen.
2 3 4 5 6		$R^{1}$ is $-NC_{5}H_{10}$ ; $R^{2}$ is hydrogen; $R^{3}$ is acetoxy; $R^{4}$ is methyl; and $X$ is $=N-OR^{5}$ , wherein $R^{5}$ is hydrogen. The compound in accordance with claim 1, wherein:
2 3 4 5 6 1 2		$R^{1}$ is $-NC_{5}H_{10}$ ; $R^{2}$ is hydrogen; $R^{3}$ is acetoxy; $R^{4}$ is methyl; and $X$ is $=N-OR^{5}$ , wherein $R^{5}$ is hydrogen. The compound in accordance with claim 1, wherein: $R^{1}$ is $-N(CH_{3})_{2}$ ;
2 3 4 5 6 1 2 3		$R^{1}$ is $-NC_{5}H_{10}$ ; $R^{2}$ is hydrogen; $R^{3}$ is acetoxy; $R^{4}$ is methyl; and $X$ is $=N-OR^{5}$ , wherein $R^{5}$ is hydrogen. The compound in accordance with claim 1, wherein: $R^{1}$ is $-N(CH_{3})_{2}$ ; $R^{2}$ is hydrogen;

1	45.	The compound in accordance with claim 1, wherein:
2		$R^{1}$ is $-NC_{5}H_{10}$ ;
3		R <sup>2</sup> is hydrogen;
4 ·		R <sup>3</sup> is methoxy;
5		R <sup>4</sup> is methyl; and
6		X is =N-OR <sup>5</sup> , wherein R <sup>5</sup> is hydrogen.
1	46.	The compound in accordance with claim 1, wherein:
2		$R^{1}$ is $-N(CH_{3})_{2}$ ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is methoxy;
5	·	R <sup>4</sup> is methyl; and
6		X is = $N$ - $OR^5$ , wherein $R^5$ is hydrogen.
1	47.	The compound in accordance with claim 1, wherein:
2		R <sup>1</sup> is -NHCH <sub>3</sub> ;
3		R <sup>2</sup> is methoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
6		X  is  = 0.
1	48.	The compound in accordance with claim 1, wherein:
2		R <sup>1</sup> is -NHCH <sub>3</sub> ;
3		R <sup>2</sup> is acetoxy;
4		R <sup>3</sup> is acetoxy;
5		R <sup>4</sup> is methyl; and
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**PATENT** 

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- 1 58. A method of inducing labor, said method comprising administering to a patient an effective amount of a compound in accordance with claim 1. 2
- A method of contraception, said method comprising administering to a 59. 1 patient an effective amount of a compound in accordance with claim 1. 2
- A method of postcoital contraception, said method comprising **60.** 1 2 administering to a patient an effective amount of a compound in accordance with claim 1.

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